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Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Schneider:

**BEST AVAILABLE TECHNOLOGY DETERMINATION FOR REMEDIAL CONSTRUCTION ACTIVITIES ON THE FERNALD ENVIRONMENTAL MANAGEMENT SITE**

Reference: Letter, T. Schneider (OEPA) to J. Reising (DOE-FEMP), "BAT Determination/Fugitive Dust," dated February 28, 1997.

We have reviewed your comments related to our proposed Fugitive Dust Best Available Technology (BAT) description and believe there are many areas of agreement. There are, however, a few areas where discussion and information exchange is still needed. The following will address your concerns point by point:

Point 1. *Paragraph 1 of your letter states that "Fugitive dust controls will be required only if fugitive dust emissions are visible." The Ohio Environmental Protection Agency (OEPA) disagrees with this approach and requires that BAT be applied during all times except when it is counterproductive (during thunderstorm) or would result in a safety hazard (under freezing conditions). All times include non-operation times (weekends, holidays, and during non-working hours) when fugitive dust could be generated by environmental conditions.*

It is our intention to reasonably minimize the generation of fugitive dust well in advance of approaching administrative or regulatory levels of concern. It is however, difficult to establish explicit criteria for appropriate initiation of individual BAT activities. This is because of the very wide range of possible combinations of prevailing environmental conditions along with types or levels of remedial construction activities.

We recognize an obligation to proactively apply BAT activities with the objective of reasonably minimizing dust generation. It is our intention to proactively implement identified BAT activities consistent with this obligation with case-by-case field determinations of the appropriate combination and level of identified activities.

Point 2. *Paragraph 2 addresses the difference between fugitive emissions from paved and unpaved roads and material storage piles (for which the operational efficiency criteria is based on the duration of visible emission applies) and construction activity (for which the operational efficiency criteria is based on opacity applies). The OEPA uses the terminology "material handling activities" instead of "construction activities" and for consistency we will use the same terminology here.*

*The following bullets outline the OEPA's categorization of activities and associated BAT efficiency criteria.*

*Material handling activities for which the opacity operating efficiency applies are:*

- *Excavation of contaminated soils*
- *Dumping a truck load of soils into the OSDF as well as subsequent grading*
- *Loading a truck with material*
- *Working with a material storage pile or conditioning soils for the OSDF liner*

*Activities for which the visible emission duration operating efficiency applies are:*

- *Emissions from roads and parking lots both paved and unpaved*
- *Emissions from material storage piles (this includes both load-in and load-out and also wind erosion)*

*The OEPA's interpretation of a road is not limited to roads that are delineated as such on work plans. Our interpretation of a road is "anything a vehicle drives over." For instance, vehicles leaving an excavation face and approaching the Waste Haul Road are not driving on a road that is designated as such in a work plan, but this is considered to be a road by the OEPA. As another example, a loader excavating soil and depositing the soil into a haul vehicle is doing work to which both the duration and opacity criteria apply. The opacity criteria applies to the emissions from the road over which the loader drives to the truck. The OEPA is open to discussion to decide when*

"excavating" stops and when "driving" begins. We suggest as a starting point that excavating stops when the loader changes gears from reverse as it leaves the excavation and into drive as it begins its approach to the truck. When the gear ship occurs is when the duration standard begins to apply.

a. We agree that "material handling activities" and "construction activities" are functionally equivalent.

b. We agree with the definitions of the activities for which opacity operating efficiency applies and activities for which visible emission duration applies with the exception of the active load-in and load-out of material storage piles. The emissions created by the material handling activities during the load-in and load-out of a storage pile are emissions caused specifically by those activities and are not related to emissions of an undisturbed storage pile. These emissions are indistinguishable from any other material handling emission and should be subject to the same visible emission restrictions, i.e., opacity operating efficiency. As previously noted, we will proactively apply BAT activities during load-in and load-out of storage piles with the objective of reasonably minimizing dust generation.

c. In these construction areas where multiple activities are occurring, it is difficult to determine the appropriate standard that should be applied; however, since these are generally construction areas, we submit that the opacity based visible emission standard would apply. We also recognize that there should be a transition area out of the designated construction area prior to entering the defined road where the duration standard could apply. We will work with you to determine the appropriate location where the excavation area ends and a road transition area begins for each project.

Point 3. *The OEPA disagrees with the Department of Energy's (DOE) proposal for "utilization of the proposed emission standards as triggers for increased controls . . ." The OEPA contends that exceedance of the efficiency criteria without the cessation of construction operations is a failure to apply BAT appropriately. This would be considered a violation of an OEPA Applicable or Relevant and Appropriate Requirement (ARAR). The criteria should be used to measure the implementation of the fugitive dust control plan and its associated work practices and to evaluate the application of BAT. In the case of a measured exceedance of the standards cited in Ohio Administrative Code (OAC) 3745-17-12, the violation would be for improperly following the BAT*

plan rather than for exceeding a numerical standard. Controls and work practices should be maintained at all times as discussed in comments above, with the level of control being increased to prevent any exceedance of the efficiency criteria.

The DOE acknowledges the OEPA's position that exceedance of the Cuyahoga County particulate emission restrictions may indicate a failure to adequately apply BAT. We have agreed to administratively restrict ourselves to a source activity shutdown in the event that full implementation of all available control measures cannot reduce emissions to below these limits. We accept that if we exceed the referenced levels and do not immediately limit or shutdown the source activity, a BAT violation would occur. As previously discussed, we believe that BAT needs to be established on a site specific basis, and therefore, we reserve the right to revisit the BAT if experience shows that implementing these controls is not cost effective and presents undue hardship and delays in completing site remediation.

Point 4. *Of the four numbered points on the enclosure entitled "General BAT determination for the Control of Fugitive Dust" the OEPA takes issue with Points 1., 2., and 4. We have articulated our concerns above. We agree with Point 3 that the working (but not the load-in or load-out) of material storage piles is a material handling activity. The OEPA does not distinguish between active and inactive material storage piles.*

Our response to this point has been previously covered in Point 2 (b).

Point 5. *We agree with the list of activities and controls to be applied. We would like to add the use of a vegetative cover to the list of control measures for material storage piles.*

We agree; the use of vegetative cover will be added to the list as a method of dust control for storage piles.

Point 6. *The scheduling of the implementation of the controls is unclear. The Table notes that controls would be applied progressively as needed but provides no details. The OEPA needs to know where the plan for defining the progression of the listed controls will be provided.*

Please see our response to Points 1 and 3.

Point 7. *Under the topic "Other Construction Activities" add an item for loading and unloading trucks. In the "Controls" column add "limit drop height or change method of excavation/transport from a front-end loader dumping into a truck to self-propelled pan."*

We agree; the item "limit drop height or change method of excavation/ transport from a front-end loader dumping into a truck to self-propelled pan," will be added to the controls list of the Other Construction Activities section.

Point 8. *The commitment to use covers on trucks "when visible emission from the material conveyed are detected" is inconsistent with the OAC requirement that "open-bodied vehicles be covered at all times when transporting materials likey to become airborne."*

We agree; the criteria for using covers on trucks will be changed from "when visible emission . . . are detected," to "when transported materials are likely to become airborne."

If you have any questions concerning this matter, please contact Kathleen Nickel at (513) 648-3166.

Sincerely,

Johnny Reising

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Nickel

cc:

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